

CI - Continuous Improvement Submittal

Date: June 23, 2000

Initiator: Monica Borowicz

Specific Objective (What):

Additional equipment: Gas Chromatograph for Environmental Testing. Automatic Purge & Trap BTEX Analysis.

Implementation Strategy and Schedule (How and When):

Presently the NASA's environmental section ships samples to an outside laboratory for analysis. This process can be time consuming especially when outside contractors encounter delays or instrument problems during a project.

The chemical and biological laboratory does not have the instrument capability to do environmental analysis with the present instrumentation. Pump and Treat System at old AFTF site is a 10-year project. The outline below shows shipping and analysis cost for an outside contracted laboratory to perform environmental analysis. The 10-year project would justify for an additional GC with profit and the chemical and biological laboratory would have the capability of doing further environmental analysis needs.

Estimated Yearly Savings:

Pump and Treat System

~ 220 BTEX samples on ground water during 1st year then down to about 150 BTEX on ground water 2nd year + yearly thereafter.
220 x \$60 (contracted lab) ~ \$13,200.

Total BTEX on Vapors Extracted from soil.
(Weekly) ~ 50 samples/year
50 x \$75 (contracted lab) = \$3,750.

Total/Dissolved Lead (Pb) ground water ~ 70 samples/year (GFAA)
70 x \$20 (contracted lab) = \$14,000.

Total/Dissolved Manganese (Mn) ground water ~ 70 samples/year (GFAA)
70 x \$20 (contracted lab) = \$14,000.

TCLP RCRA 8 metals + 2 (Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Silver, and Zinc) = x 12 yearly
12 x \$200 (contracted lab) = \$2400.

Estimated Continuing Savings:

Estimated cost for additional equipment for Gas Chromatograph for Environmental testing = **\$51,000**.

The total cost of continuing savings for a year = **\$47,350**.

In one year the total cost of sampling analysis would justify for an additional Gas Chromatograph for environmental analysis needs.

The profit over ten years of this CI is **\$473,500**

Task Assignment Monitor Consulted? Yes **Date:** 07 Feb. 2000

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